UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/303,424	05/03/1999	JUSSI LEMILAINEN	017.37066X00	8349

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EXAMINER
ABDI, KAMBIZ

ART UNIT	PAPER NUMBER
3621	

DATE MAILED: 11/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/303,424	LEMILAINEN ET AL.
	Examiner	Art Unit
	Kambiz Abdi	3621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>30 June 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☒ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   The examiner was pointed to minor typo problems in the previous office action mailed on 10 September 2004, via telephone conversation with the representative of the applicant. Rejections of dependent claims 19-20 were inadvertently not included which here are included with the rest of the claim rejections. Office action mailed on 10 September 2004 has been withdrawn pursuant to the telephone interview with the applicant's representative attorney Donald E. Stout, and the current new final office action is substituted thereafter.

1.   The prior office actions submitted by previous examiners (01/27/2004, 09/05/2003, 04/02/2003, 08/01/2002, 03/14/2002, 09/11/2001) are incorporated herein by reference. In particular, the observations with respect to claims language, and responses to previously presented arguments.

- Claims 1, 21, 22, 24, and 26 are amended.

- Claims 1-35 have been considered.

Continued Examination Under 37 CFR 1.114

2.   A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 22 June 2004 has been entered.

Response to Arguments

3.   Applicant's arguments filed 26 April 2004 have been fully considered but are moot in view of the new ground(s) of rejection.

4.   Additionally, current examiner has fully considered arguments submitted by the applicant but they are not persuasive for the following reasons:

5.   Examiner further notes that it is the Applicant's claims as stated in the Applicant's claims that are being rejected with the prior art.

On page 16 of the Applicant's Amendment dated 26 April 2004, Applicant states, "Prior to the

invention, as described in the specification… a problem existed when a user wished to obtain services

from a packet data network while remaining anonymous or where there was no roaming agreement

(unlike Rai et al) permitting the user to be billed while roaming from the user's home network".

However, the Applicant's claims do not include the words anonymous nor contract nor contractual

nor agreement nor roaming agreement nor prior nor new nor billing.

6.   Hence, the Applicant's claims do not disclose that the user is anonymous or that there is not a

prior roaming agreement or prior contract, etc. It should be emphasized that just to have a requirement for

payment at the time of the communication does not by itself negate lack of agreements between the

entities. One should be aware of the existence of some form of agreement before any payment is

transacted.

7.   In response to applicant's argument that the references fail to show certain features of applicant's

invention, it is noted that the features upon which applicant relies (i.e., roaming agreement, anonymity)

are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification,

limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26

USPQ2d 1057 (Fed. Cir. 1993).

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented
> and the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

9.   Claims 1-3, 5-10, 13-15, 17-18, 21-30, 32, and 34-35 are rejected under 35 U.S.C. 103(a) as

being unpatentable over U.S. Patent No. 6,577,643 to Girish Rai in view of U.S. Patent No. 6,047,179 to

Richard Steven Kirby.

10.   As per claims 1, 21, 22, 23, 24, 25, 26, and 27, Rai discloses charging for pay-per-access to a vendor network. Rai further discloses:

inputting a user request to the first network (home wireless service provider) which requests that the user be authorized for connection to the packet data network (internet service provider) that the web page is on through the second network (foreign wireless service provider, visited network, or the roaming network); transmitting from the first network to the second network the user request and an authorization of payment to the second network by the first network for the use by the user of the packet data network; transmitting from the second network to the first network authentication information granting the user authentication to obtain connection through the second network to the packet data network; and transmitting the authentication information from the first network to the user which informs the user that authentication to obtain connection to the packet data network has been obtained (See Rai Fig. 3; col 6, line 64-col 7, line 12; col 8, lines 40-62; col 4, line 60- col 5, line 74 col 26, line 48-57; col 25, lines 42-50).

Rai further discloses that an access to a webpage on a network can be set to be valid during specific times or limited time periods (See Rai col 28, lines 9-25; col 26, line 63-col 27, line 5; col 29, lines 57-65; col 30, lines 13-19; col 19, lines 26-31).

Rai further discloses a first network, a second network, and a packet data network (See Rai Fig. 3; col 6, line 64-col 7, line 12; col 8, lines 40-62; col 4, line 60-col 5, line 7; col 26, line 48-574 col 25, lines 42-50).

Rai further discloses that the second network debits from a stored value of service units which have been granted to the user a number of consumed service units, which are identified in each request for consumption of at least one service unit until the number of consumed service units equals the number of granted service units (See Rai col 27, line 44-col 30, line 46; col 6, lines 26-35)

Rai further discloses the user roaming the second network (See Rai Fig. 34; col 6, line 64-col 7, line 12; col 8, lines 40-62; col 4, line 60-col 5, line 74 col 26, line 48-57; col 25, lines 42-50).

What Rai does not explicitly disclose is the connection being paid for by the first network making payment to the second network, that a requirement for the payment to be made is the result of communications which first originate with the user request to the first network.

However, Kirby clearly discloses the method of free roaming. As the visited network communicated with the home network of the user and request authorization to commence communication and provide access to the user as well as requesting payment and start charging the home network for the communication services provided by the second network to the user (free roamer) based on the pre-assigned amount of funds for the use by the users home network (balance) (See Kirby col 10, lines 46-55, col 11, line 48-col 12, line 13, col 12, lines 39-68, and col 22, line 55-col 24, line 25.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Kirby's utilization of debiting an account balance or available funds of the home network, to Rai's utilization of tables and accounting information. One would have been motivated to do this because a debiting is an obvious way of managing a user account and making payment for the free roamers, which have no affiliation with the network that they are utilizing to conduct the communication via.

11.   As per claim 2, Rai discloses a method in accordance with claim 1, and further discloses that the user request includes a quantification (cost) of connectivity, which the user requests to the packet data network (See Rai col 27, line 44-col 30, line 46; col 6, lines 26-35).

12.   As per claims 13, 14, 15, and 17, Rai discloses a method in accordance with claims 1, 2, 3, and 5, and further discloses that the inputting of the user request to the first network (home warless service provider), the transmitting of the user request and an authorization of payment to the second network (foreign service provider), and the transmitting of the authentication information from the second network to the first network and to the user are by secure communications (See Rai col 2, lines 8-14).

13.   As per claims 3, 30, and 32, Rai discloses a method in accordance with claims 2, 26, and 27 and further discloses that the quantification (cost) comprises at least one service unit with each service unit being encoded with a random number (See Rai col 30, lined 45-56; col 26, lines 4-10).

Rai further discloses that the user request includes a quantification (cost) of connectivity, which the user requests to the packet data network (See Rai col 27, line 44-col 30, line 46; col 6, lines 26-35)

Rai further discloses these features at the following citations (See Rai col 27, lines 15-60; col 29, line 40-col 30, line 56).

14.   As per claims 5, 7, 9, and 28, Rai discloses a method in accordance with claim 1, 2, 3, and 26 and further discloses that the authentication information comprises a shared key (shared secret), which may be used to create secure communications between the user and the packet data network (See Rai col 26, lines 4- 10; col 30, lined 45-56).

15.   As per claims 6, 8, 10, and 29, Rai discloses a method in accordance with claim 5, 7, and 28 and further discloses that authentication information is a subscriber identification module SIM comprising a number n of service units with each service unit comprising a different random access number uniquely identifying each service unit, a signed response SRES and the shared key Kc (See Rai col 27, line 44-col 30, line 464 col 26, lines 4-10; col 30, lined 45-56).

16.   As per claims 18, 34, and 35, Rai discloses a method in accordance with claims 3, 30, and 32 and further discloses that after the user is informed that authentication to obtain connection to the packet data network has been obtained, the user transmits to the second network at least one request for consumption of at least one service unit comprising a random number RANDI and a signed response SRES; the second network compares the random number RAND and signed response SRES of each request for consumption of at least one service unit received from the user with stored random numbers and signed responses SRES to determine if a match exists; and if a match exists, the second network permits data packets to pass through the second network between the user and the packet network (See Rai col 27, line 44-col 30, line 46; col 26, lines 4-10; col 30, lined 45-56; Fig. 3; col 6, line 64-col 7, line 12; col 8, lines 40-62; col 4, line 60-col 5, line 7; col 26, line 48-57; col 25, lines 42-50).

17.   Claims 4, 11-12, 16, 19-20, and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable

over U.S. Patent No. 6,577,643 to Girish Rai and 6,047,179 to Richard Steven Kirby and further in view of

U.S. Patent No. 5,930,777 to Timoty P. Barber.

18.   As per claims 4, 31, and 33, Rai and Kirby disclose a method in accordance with claims 3, 30,

and 32, Rai further discloses that each service unit is encoded with a random number (See Rai col 30,

lined 45-564 col 26, lines 4-10).

Rai further discloses the utilization of secure networks (See Rai col 2, lines 10-14).

Rai does not explicitly disclose that each service unit has a different random number.

However, Barber and Kirby disclose that the second network debits from a stored value of service

units (balance) which have been granted to the user a number of consumed service units which are

identified in each request for consumption of at least one service unit until the number of consumed

service units equals the number of granted service units (balance available) (See Rai col 5, lines 50-56;

col 9, line 23-30; col 2, lines 62-66 also, see Kirby col 10, lines 46-55, col 11, line 48-col 12, line 13, col

12, lines 39-68, and col 22, line 55-col 24, line 25).

However, Barber discloses that each service unit is encoded with a different random number

(See Barber col 30, lined 45-56).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the

invention was made to add Barber's utilization of different random numbers to Rai' s utilization random

numbers. One would have been motivated to do this to ensure a higher level of security.

19.   As per claim 11, Rai and Kirby disclose a method in accordance with claim 4, and Rai further

discloses that the authentication information comprises a shared key (shared secret), which may be used

to create secure communications between the user and the packet data network (See Rai col 26, lines 4-

10; col 30, lined 45-56).

20.   As per claim 12, Rai and Kirby discloses a method in accordance with claim 11, and Rai further discloses that authentication information is a subscriber identification module SIM comprising a number n of service units with each service unit comprising a different random access number uniquely identifying each service unit, a signed response SRES and the shared key Kc (See Rai col 27, line 44-col 30, line 464 col 26, lines 4-10; col 30, lined 45-56).

21.   As per claim 16, Rai and Kirby discloses a method in accordance with claim 4, and Rai further discloses that the inputting of the user request to the first network (home warless service provider), the transmitting of the user request and an authorization of payment to the second network (foreign service provider), and the transmitting of the authentication information from the second network to the first network and to the user are by secure communications (See Rai col 2, lines 8-14).

22.   As per claims 19 and 20, Rai discloses a method in accordance with claim 18, and Rai further discloses, a table (col 37, line 60-col 38, line 40) and extensive accounting procedures (col 27, line 44-col 30, line 46).

Rai does not explicitly disclose debiting or a hash table.

However, Barber discloses that the second network debits from a stored value of service units which have been granted to the user a number of consumed service units which are identified in each request for consumption of at least one service unit until the number of consumed service units equals the number of granted service units (col 5, lines 50-56., col 9, line 23-30., col 2, lines 62-66).

However, Barber discloses that each unused service unit is stored in the second network in a hash table and each used service unit is stored in the second network in a hash table (col 10, lines 17-67,. col 8, lines 45-65).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to add Barber's utilization of debiting and a hash table to Rai's utilization of tables and accounting information. One would have been motivated to do this because a debiting is an obvious

way of managing a user account and a hash table is an obvious way of recording user utilization and accounting information.

Conclusion

23.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kambiz Abdi whose telephone number is (703) 305-3364. The examiner can normally be reached on 9 AM to 5:00 PM.

24.   If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James P Trammell can be reached on (703) 305-9768. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

25. ,   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Hand delivered responses should be brought to:

Crystal Park 5, 2451 Crystal Drive
7th floor receptionist, Arlington, VA, 22202

Kambiz Abdi
Examiner

November 4, 2004